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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/809,273

03/16/2001

Hiroyuki Nishii

Q63124

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EXAMINER

GARRETT, DAWN L

ART UNIT

PAPER NUMBER

1774

MAIL DATE

DELIVERY MODE

05/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/809,273

Applicant(s)

NISHII ET AL.

Examiner

Dawn Garrett

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,10,12,13,15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,10,12,13,15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11-13-2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. This Office action is responsive to the amendment filed February 16, 2007. Claims 1-3, 5-9, 11, 14, 16 and 18 are canceled. Claims 12, 15, and 17 were amended. Claims 4, 10, 12, 13, 15, and 17 are pending.
2. The rejection of claims 5 and 6 under 35 U.S.C. 102(b) as being anticipated by Cook (US 3,429,717) is withdrawn due to the cancellation of these claims.
3. The rejection of claims 5 and 6 under 35 U.S.C. 102(b) as being anticipated by Farrell (US 4,536,409) is withdrawn due to the cancellation of these claims.
4. The rejection of claims 3, 9, 11, 12 and 14 under 35 U.S.C. 103(a) as being unpatentable over Cook (US 3,429,717) in view of Biebuyck et al. (US 5,734,225) is withdrawn due to the cancellation of some of the claims and the amendment.
5. The rejection of claims 3, 9, 11, 12 and 14 under 35 U.S.C. 103(a) as being unpatentable over Farrell (US 4,536,409) in view of Biebuyck et al. (US 5,734,225) is withdrawn due to the cancellation of some of the claims and the amendment.
6. The rejection of claim 16 under 35 U.S.C. 103(a) as being unpatentable over Cook (US 3,429,717) in view of Takita et al. (JP 05-156058) is withdrawn due to the cancellation of this claim.
7. The rejection of claim 16 under 35 U.S.C. 103(a) as being unpatentable over Farrell (US 4,536,409) in view of Takita et al. (JP 05-156058) is withdrawn due to the cancellation of this claim.

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8. The rejection of claims 15, 17, and 18 under 35 U.S.C. 103(a) as being unpatentable over Cook (US 3,429,717) in view of Biebuyck et al. (US 5,734,225) in further view of Takita et al. (JP 05-156058) is withdrawn due to the amendment.

9. The rejection of claims 15, 17, and 18 under 35 U.S.C. 103(a) as being unpatentable over Farrell (US 4,536,409) in view of Biebuyck et al. (US 5,734,225) in further view of Takita et al. (JP 05-156058) is withdrawn due to the amendment.

Claim Objections

10. Claims 15 and 17 are objected to because of the following informalities: Claims 15 and 17 set forth an unrecognized unit of measurement. It is suggested that the claims be amended to set forth the appropriate symbol for micrometer. For the purpose of examination micrometers has been assumed to be the correct unit, since micrometer was previously set forth in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

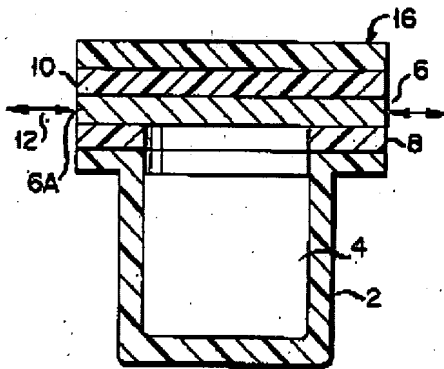
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 4 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Wakamatsu et al. (US 4,667,814). Wakamatsu et al. discloses an oxygen absorbent packet comprising a plastic sheet (2) (“non-porous sheet”), adhesive (8) to seal (2) and (6), an air-permeable non-woven sheet (6) (see col. 2, lines 43-45; the “reinforcing layer” of “porous sheet”), an air-impermeable layer that may have pores (10)(see col. 3, lines 39-44; the “porous layer” of the

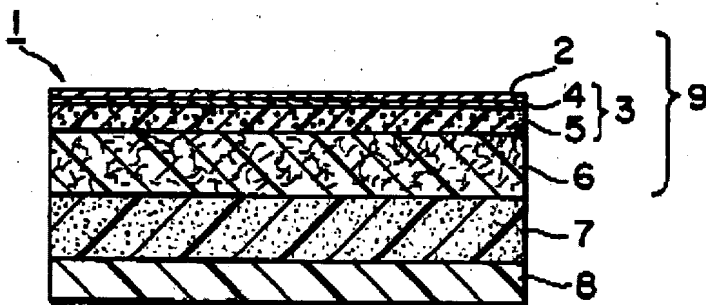
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“porous sheet”) and an aluminum foil covering (14) (alternatively also a “non-porous sheet”).

Oxygen absorbent (4) is held in the container (per instant claim 13). See Figures 1 and 2.



13. Claims 4 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (US 5,143,763). Yamada et al. discloses containers comprising an oxygen scavenger laminate (see abstract). Figure 1 shows an oxygen absorber (7), a non-woven fabric layer (6) (“reinforcing layer”), a porous membrane (3) (“porous layer”), a non-porous layer (2) and a laminate layer (8) having gas barrier properties (“non-porous layer”). See col. 16, lines 28-35.



Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wakamatsu et al. (US 4,667,814). Wakamatsu et al. is relied upon as set forth above for the rejection of claim 4. Wakamatsu et al. fails to teach expressly the combined average pore size of the air-permeable non-woven sheet (6) (see col. 2, lines 43-45; the "reinforcing layer" of "porous sheet") and the air-impermeable layer that may have pores (10) (see col. 3, lines 39-44; the "porous layer" of the "porous sheet") to form the "porous sheet". Wakamatsu et al. does teach if a microporous film is used the pore size should range from 0.01 to 50 micrometers (see col. 2, lines 67-68) and that small pores are desirable (see col. 3, lines 39-43). It would have been obvious to one of ordinary skill in the art to have formed the sheet (6) and sheet (10) having pore sizes within the range of claim 15, because one would expect such a pore size to allow the desired amount of water and/or gases to pass through. Optimization of the pore size would result in allowing the desired amount of water and/or gases to pass through. Furthermore, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. A prima facie case of obviousness may be rebutted where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

16. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 5,143,763). Yamada et al. is relied upon as set forth above for the rejection of claim 4. Yamada et al. fails to teach expressly the combined average pore size of the "reinforcing layer" (6) and the "porous layer" (3, 4 or 5) for the "porous sheet". Yamada et al. does teach the dense

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skin layer has a pore size of up to 0.5 micrometers (see col. 7, lines 14-15) and that porosity affects the oxygen permeation rate (see col. 7, lines 36-62). It would have been obvious to one of ordinary skill in the art to have formed the sheets (3) and (6) having pore sizes within the range of claim 15, because one would expect such a pore size to allow the desired amount of water and/or gases to pass through. Optimization of the pore size would result in allowing the desired amount of water and/or gases to pass through. Furthermore, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. A prima facie case of obviousness may be rebutted where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

17. Claims 10, 12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakamatsu et al. (US 4,667,814) in view of Biebuyck et al. (US 5,734,225). Wakamatsu et al. discloses an oxygen absorbent packet comprising a plastic sheet (2) ("non-porous sheet"), adhesive (8) to seal (2) and (6), an air-permeable non-woven sheet (6) (see col. 2, lines 43-45; the "reinforcing layer" of "porous sheet"), an air-impermeable layer that may have pores (10)(see col. 3, lines 39-44; the "porous layer" of the "porous sheet") and an aluminum foil covering (14) (alternatively also a "non-porous sheet"). Oxygen absorbent (4) is held in the container (per instant claim 13. See Figures 1 and 2. Wakamatsu et al. describe the packaging as being useful for sealing items to protect from oxygen, but fails to teach the packaging could be used to protect an organic electroluminescent device. Biebuyck et al. discuss the importance of protecting an organic electroluminescent device from oxidation by encapsulating the device (see col. 1, lines

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7-37 and col. 2, lines 43-44) and further describes it is desirable to have a protective film directly adjacent the EL device (see col. 2, lines 53-61). It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the oxygen scavenger packet taught by Wakamatsu et al. as part of a container for an organic electroluminescent device, because Wakamatsu et al. teach the film contains an antioxidant for protection against oxidation and Biebuyck et al. teach organic electroluminescent devices need packaging in order to protect the devices from oxidation and subsequent limited lifetime of the device due to oxidation.

Wakamatsu et al. fails to teach expressly the combined average pore size of the air-permeable non-woven sheet (6) (see col. 2, lines 43-45; the “reinforcing layer” of “porous sheet”) and the air-impermeable layer that may have pores (10)(see col. 3, lines 39-44; the “porous layer” of the “porous sheet”) to form the “porous sheet”. Wakamatsu et al. does teach if a microporous film is used the pore size should range from 0.01 to 50 micrometers (see col. 2, lines 67-68) and that small pores are desirable (see col. 3, lines 39-43). It would have been obvious to one of ordinary skill in the art to have formed the sheet (6) and sheet (10) having pore sizes within the range of claim 17, because one would expect such a pore size to allow the desired amount of water and/or gases to pass through. Optimization of the pore size would result in allowing the desired amount of water and/or gases to pass through. Furthermore, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants’ claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. A prima facie case of obviousness may be rebutted where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

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18. Claims 10, 12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. in view of Biebuyck et al. (US 5,734,225). Yamada et al. discloses containers comprising an oxygen scavenger laminate (see abstract). Figure 1 shows an oxygen absorber (7), a non-woven fabric layer (6) ("reinforcing layer"), a porous membrane (3) ("porous layer"), a non-porous layer (2) and a laminate layer (8) having gas barrier properties ("non-porous layer"). See col. 16, lines 28-35. Yamada et al. describe the packaging as being useful for sealing items to protect from oxygen, but fails to teach the packaging could be used to protect an organic electroluminescent device. Biebuyck et al. discuss the importance of protecting an organic electroluminescent device from oxidation by encapsulating the device (see col. 1, lines 7-37 and col. 2, lines 43-44) and further describes it is desirable to have a protective film directly adjacent the EL device (see col. 2, lines 53-61). It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the oxygen scavenger packet taught by Yamada et al. as part of a container for an organic electroluminescent device, because Yamada et al. teach the film contains an antioxidant for protection against oxidation and Biebuyck et al. teach organic electroluminescent devices need packaging in order to protect the devices from oxidation and subsequent limited lifetime of the device due to oxidation.

Yamada et al. fails to teach expressly the combined average pore size of the "reinforcing layer" (6) and the "porous layer" (3, 4 or 5) for the "porous sheet". Yamada et al. does teach the dense skin layer has a pore size of up to 0.5 micrometers (see col. 7, lines 14-15) and that porosity affects the oxygen permeation rate (see col. 7, lines 36-62). It would have been obvious to one of ordinary skill in the art to have formed the sheets (3) and (6) having pore sizes within the range of claim 17, because one would expect such a pore size to allow the desired amount of

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water and/or gases to pass through. Optimization of the pore size would result in allowing the desired amount of water and/or gases to pass through. Furthermore, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. A prima facie case of obviousness may be rebutted where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

Response to Arguments

19. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dawn Garrett
Primary Examiner
Art Unit 1774